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Mr. Karney,

Once again, we at Danvid Window Company feel that the .40 thermal value assigned by ENERGY STAR to the Sunbelt States of the Central Zone Region(s) (three and four zone alternatives) for window thermal requirements are illogical, biased, and does not represent a fair dictation of energy conservation.

As stated in your energy analysis, *"The lower a window's U-factor and the higher its SHGC, the more it lowers a building's heating energy use. The lower a window's SHGC, the more it lowers the building's cooling energy use, including peak power electricity use.* ***U-factors have minimal impact on cooling****."*. The U-factor and SHGC ENERGY STAR assigned in the northern zones follows the prior statement, however in the central zone (three zone alt.) and the south central zone (four zone alt.) the SHGC assigned follows the statement but the U-factors do not follow this statement. If U-factors have minimal impact on cooling, why would it be required for the Sunbelt States (cooling cost reduction emphasis areas) to have the same U-factor as places like Cincinnati, Ohio (heating cost reduction emphasis areas)? Also if U-factors have minimal effect on cooling, why is the U-factor value being reduced by 47% in the Sunbelt States other than to eliminate the market for aluminum windows?

According to the analysis spreadsheet provided by your web site Fort Worth, TX annual energy cost sales are $99.10 heat and $245.74 cooling, and Oklahoma City, OK annual energy costs sales are $209.14 heat and $178.13 cooling. Although Fort Worth has a 2.48 to 1 cooling to heat ratio, it is in the same zone as Oklahoma City, which has a 1.17 heat to cooling ratio. These numbers not only prove that the zones are created unfairly, but they take away from the basis on which the south central zone was created, to achieve maximum cooling savings.

It also appears that Energy Star exposed its underlying intentions as to the reason an abnormally low thermal value was inacted in a memo written on October 19, 2001, by William E. Noel, then Manager of the Energy Star Program, who said in his memo, first paragraph:

"In July 2001, the Department of Energy (DOE) initiated a review of the criteria for ENERGY STAR windows and partially glazed doors. In part, this review was precipitated by changes to energy codes in several states across the country. As a result of code changes in several states, minimum energy performance requirements will exceed the current ENERGY STAR specification in some areas."

Interpretation is that ENERGY STAR felt its existence was threatened through the common sense approach that states such as Texas had adopted the International Residential Code and the International Energy Conservation Code as their guide to complying with the Federal Clean Air Act amendment of 1997.

The IRC and IECC is used nationally by states, cities, building contractors, and building inspectors, both residential and commercial to specify proper building structure, insulation procedures, and thermal requirements of windows. Specifically, every county in the United States through 20 years of weather data study has been given a zone rating relating to the number of days with temperatures above or below normal (hdd) which required power to heat or cool.

According to the IECC, an example of zone ratings is Minnesota in zone 17 and Texas (Dallas), Zone 5. For a home with 15% of its outside wall area, the Thermal "U" value requirement is .35 in Minnesota and .65 in Dallas, Texas.

The illogical, biased, and unfair Energy Star requirement for the Central portion of the United States to have a .40 thermal requirement is that it is only five points less stringent than our nations' most harsh weather in Minnesota, but 25 points more stringent for Dallas, Texas and most of the Central Region which covers approximately 80% of the Sunbelt States.

This change as proposed by ENERGY STAR will eliminate the aluminum window as an option to home and commercial builders and make the wood and vinyl window the homeowner's only choice.

Options no longer available to the homeowner, builder, or municipality due to the elimination of the aluminum window would be:

1- Increased window cost to builder and homeowner (approx. 30%++)
2- Decreased structural strength as compared to aluminum.
3- Increased risk of toxic fumes to homeowner and firemen during a house fire.
4- Currently, aluminum window builders are not equipped to make the sudden change from aluminum to vinyl.
   Home construction would suffer due to the unavailability of vinyl windows.

Even though, the ENERGY STAR is a volunteer energy rating system, we at Danvid Window Company feel that as a government sponsored agency that it is promoting an unfair system that if left unchecked will be detrimental to the homeowner, builder, and window manufacturers in the Southern Central States region. We suggest that a closer compliance with an already well established thermal rating system, the IRC and the IECC, become the basis for the ENERGY STAR program. We feel that ENERGY STAR's SHGC are acceptable, but the U-factors need to be adjusted to treat each zone fairly.

Sincerely,

Anthony Jobb, Plant Engineer
Danvid Window Company